

Work Order ID 160832

Thursday, May 04, 2017 2:48:41 PM

160832

Page 1

Item ID: PB67-43001-35

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Lower Pad Assembly

Start Date: 5/5/2017 Start Qty: 6.00

6

Cust Item ID:

Required Date: 5/26/2017 Req'd Qty: 6.00

6

Customer:

Reference: SCHEDULED/U

DAS

Approvals:

Process Plan:

21Date: **MAY 05 2017**

Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr

Revision Nbr

B67-43001-35

Rev C

100

0.00

100

FLOW WATER JET

Waterjet

Memo

0.89

FLOW CNC Waterjet

1-Cut as per Dwg B67-43001-341

Dwg Rev: CProg Rev: C

***grain direction along 24.15" ***

2-Deburr if necessary

(C)02/17/05/110

110

0.00

110

QC2- Inspect parts off machine FAI/FAIB

QC

Memo

0.06

Quality Control

(C)02/17/05/110

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>				Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																																
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Work Order ID 160832

Thursday, May 04, 2017 2:48:41 PM

160832

Page 2

Item ID: PB67-43001-35

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Lower Pad Assembly

Start Date: 5/5/2017 Start Qty: 6.00

6

Cust Item ID:

Required Date: 5/26/2017 Req'd Qty: 6.00

6

Customer:

Reference: SCHEDULED/U

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	QC8- Inspect parts - second check	0.00							DAS 38 9-89
120									
QC	Memo	0.12							

Quality Control

MAY 17 2017

130	Small Fab	0.00							
130									
Small Fab	Memo	0.38							
Small Fab	1- counter sink rivet holes as per dwg								

140	NC BRAKE	0.11							
140									
Brake NC	Memo	0.38							
Brake NC	Bend as per Dwg B67-43001								

DAS
30
9-89

MAY 23 2017

DAS
36
9-89

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

Work Order ID 160832

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160832

Page 3

Item ID: PB67-43001-35

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Lower Pad Assembly

Start Date: 5/5/2017 Start Qty: 6.00

6

Cust Item ID:

Required Date: 5/26/2017 Req'd Qty: 6.00

6

Customer:

Reference: SCHEDULED/U

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150	QC5- Inspect part completeness to step on W/O	0.00							DAS 38 9-89
150						6			
QC	Memo	0.12							
Quality Control									MAY 23 2017
160	Chemical Conversion Coat per QSI005 4.1	0.00							
160						6			
HandFinish	Memo	0.36							
Hand Finishing									6 1705-25. DAS 34 9-89
170	Green Sandtex(Ref:4.3.5.8) per QSI005 4.3	0.00							
170						6			
Powdercoat	Memo	0.22							
Powder Coating									6 1705-25. DAS 34 9-89
	START TIME: 2:00 OVEN TEMPERATURE:								
	FINISH TIME: 2:30								

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
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				Lead hand / Supervisor Approval Verification	
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OTHER : ☐					

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Page 4

DAS
38
9-89
MAY 26 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
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Page 5

Item ID: PB67-43001-35

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Lower Pad Assembly

Start Date: 5/5/2017 Start Qty: 6.00

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Cust Item ID:

Required Date: 5/26/2017 Req'd Qty: 6.00

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Customer:

Reference: SCHEDULED/U

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
210		0.00							13 9-89
210	PURCHASING					6		MAY 31 2017	
Purchasing	Memo	0.00							
Purchasing	SEND TO TALMAR FOR FOAM AND FABRIC								P/O: 36512
220	Receive & Inspect for Damage & Mat'l Certs	0.00							
220									
Packaging	Memo	0.12							6x 8x 17-622
Packaging									
230	QC6- All purchased or subcontracted products	0.00							
230						6			
QC	Memo	0.00							
Quality Control									DAS 38 9-89 JUN 23 2017

DQA: _____ Date: _____



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				Lead hand / Supervisor Approval Verification																	
				QC / QA Coordinator Approval																	
<table style="width: 100%; border: none;"> <tr> <td style="width: 25%; text-align: center;">Root Cause</td> <td style="width: 25%;"></td> <td style="width: 25%; text-align: center;">FAULT CATEGORY</td> <td style="width: 25%;"></td> </tr> <tr> <td style="border: none;"> Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ </td> <td style="border: none;"> No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐ </td> <td style="border: none;"> Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ </td> <td style="border: none;"> Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ </td> </tr> <tr> <td style="border: none;"> Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ </td> <td style="border: none;"> Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐ </td> </tr> </table>					Root Cause		FAULT CATEGORY		Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
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OTHER : _____																					

Work Order ID 160832

Thursday, May 04, 2017 2:48:41 PM

160832

Page 6

Item ID: PB67-43001-35 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Lower Pad Assembly
Start Date: 5/5/2017 Start Qty: 6.00 ***6*** Cust Item ID:
Required Date: 5/26/2017 Req'd Qty: 6.00 ***6*** Customer:
Reference: SCHEDULED/U

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

240 Identify as per dwg & Stock Location: W200B 0.00

240

Packaging

Memo

0.06

Packaging

6x SP17-6-23

250 QC21- Final Inspection - Work Order Release 0.00

250

QC

Memo

0.60

Quality Control

17/6/27

JUN 23 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐			
Design ☐	☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐			
Doc/Data ☐	☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐			
Equip/Tooling ☐	☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐			
Handling/Pre ☐	☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐			
Material ☐	☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐			
Internal Transport ☐	☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐			
Tribal Knowledge ☐	☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐			
LOA ☐	☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐			
Substation ☐	☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐			
Past Expiry Date ☐	☐	Manufacturing Process ☐	OTHER :						
Misidentified ☐	☐	Past Due ☐							

Picklist Print

Thursday, May 04, 2017 2:48:41 PM

Page 1

Work Order ID: 160832

160832

Parent Item: PB67-43001-35

PR67-43001-35

Parent Item Name: Lower Pad Assembly

Start Date: 5/5/2017

Required Date: 5/26/2017

Start Qty: 6.00

Required Qty: 6.00

Comments: IPP Rev:A 08-06-20 new issue DD verified by:ec
10.09.28 per rev C dwg EC verified by:DD

IPP Rev C

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

M2024T3S.032		Purchased		No		190	sf	124.9400	0.4192	2.647579			
--------------	--	-----------	--	----	--	-----	----	----------	--------	----------	--	--	--

M2024T3S 032

2024-T3 .032 sheet

05/17/16

Location	Loc Qty	Loc Code
MAT022	124.94	
M134581	3	
M135010	1.6	
M135032	6	
M136687	18.34	
M137435	96	

MS20426AD3-3		Purchased		No		100	Each	3,235.000	14	84			
--------------	--	-----------	--	----	--	-----	------	-----------	----	----	--	--	--

MS20426AD3-3

RIVET

17/05/26

DAS
36
9-89

Location	Loc Qty	Loc Code
FG107/108	160	
M137350	160	
fg108	200	
M134946	200	
GA	762	
M135274	762	
ST312	2113	
M135274	2113	

84

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			
				Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

Picklist Print

Thursday, May 04, 2017 2:48:41 PM

Page 2

Work Order ID: 160832

160832

Parent Item: PB67-43001-35

PR67-43001-35

Parent Item Name: Lower Pad Assembly

Start Date: 5/5/2017

Required Date: 5/26/2017

Start Qty: 6.00

Required Qty: 6.00

MS21075L3 MS21075L3N Purchased No

100

Each

4.0000

7

42

MS21075L3 4D

17/05/26

DAS
36
9-89

Nut Plate

M137597
(42X)

Location

Loc Qty

Loc Code

GA

1

m135774

1

ST298

3

m135908

3

DQA: _____ Date: _____

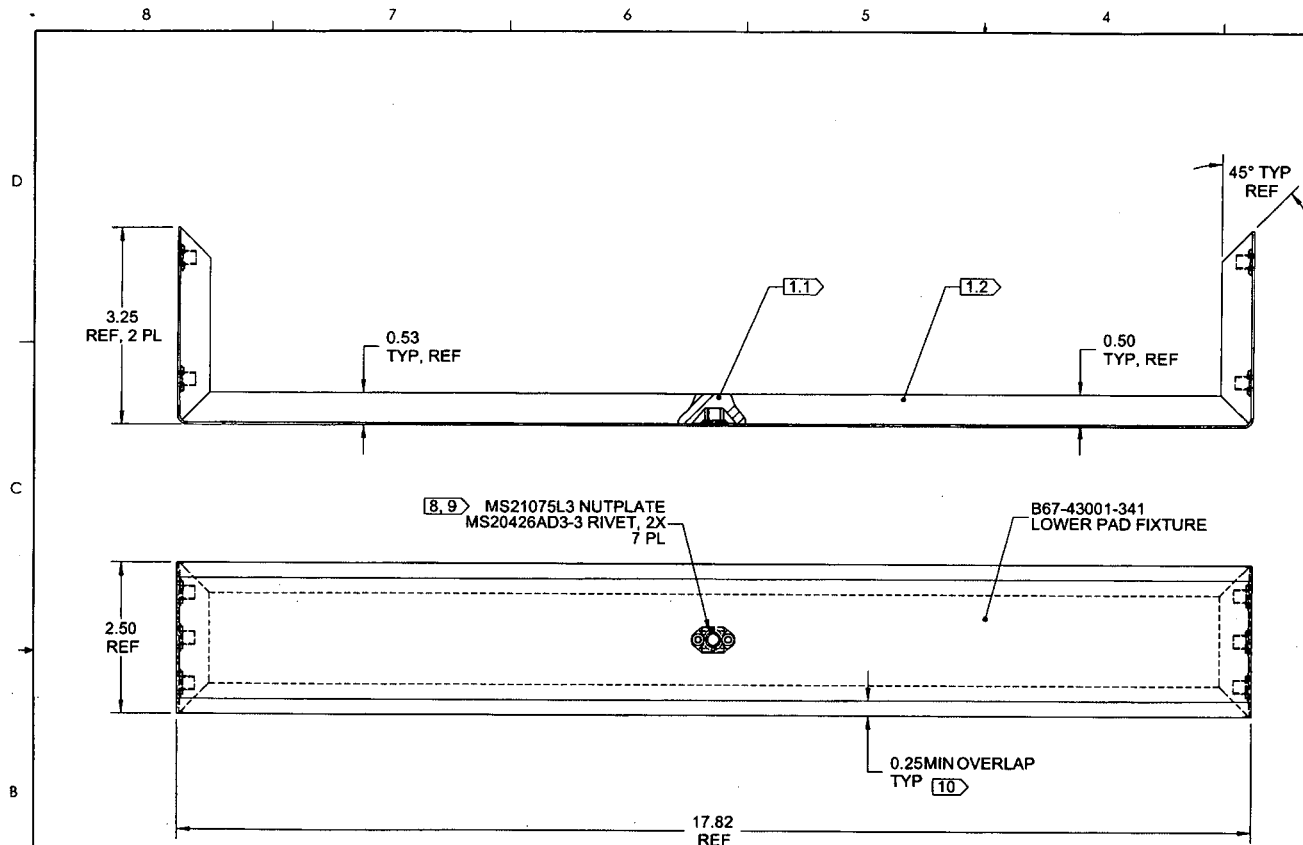


WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width: 100%; border: none;"> <tr> <td style="width: 15%;">Skid-tube ☐</td> <td style="width: 15%;">Cross tube ☐</td> <td style="width: 15%;">Water Jet ☐</td> <td style="width: 15%;">Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																							
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Environment ☐	Design ☐	Doc/Data ☐	Equip/Tooling ☐	Handling/Pre ☐	Material ☐	Internal Transport ☐	Tribal Knowledge ☐	LOA ☐	Substation ☐	Past Expiry Date ☐	Misidentified ☐	No Re-verification ☐	Operator ☐	Offset/Setup ☐	Supplier ☐	Training ☐	Use for Testing ☐	Poor Information ☐	Rushing ☐	Product Improvement ☐	Process Improvement ☐	Manufacturing Process ☐	Past Due ☐	Pressure/Forced ☐	Bending ☐	Centre Not Concentric ☐	Cracks ☐	Crimp/Kink/Ripple/Wave ☐	Cuffs ☐	Crushing ☐	Heat Treat ☐	Wave/Twist in Tube ☐	Marks/Chatter ☐	Temperature/Cure ☐	Set-up ☐	BOM/Route ☐	Broken/Damage/Defect ☐	Inspection Incomplete/Unqualified ☐	Contamination ☐	Countersink ☐	Cut Too Short ☐	Instructions Incomplete/Unclear ☐	Drill Holes ☐	Power Loss/Surge ☐	Folio/Program ☐	Grain ☐	Weld ☐	Wrong Stock Pulled ☐	Out of Sequence ☐	Off-set ☐	Mislabeled ☐	Fit/Function ☐	Misaligned/off center ☐	Positioned Wrong ☐	Outside Dimensions ☐	Over/Under tolerance ☐	Part Incorrect ☐	Part Lost/Missing ☐	Part Moved ☐	Drawing ☐	Finish ☐	Misread ☐	Turning Sequence ☐
OTHER : _____																																																															



B67-43001-35 LOWER PAD ASSEMBLY

NOTES:

1) MATERIAL:

- 1.1) FOAM: ETHYLENE PROPYLENE NEOPRENE SBR CLOSED-CELL, FLAME RETARDANT, 0.50 THICK, PER ASTM D1056 2A2, SERVICE TEMP -40 °F TO +200 °F, COLOUR: BLACK REF. TULMAR P/N 1637-001
- 1.2) FABRIC: 100% 420 DENIER NYLON, MIN THREAD COUNT 35X35, POLYURETHANE COATED ONE SIDE, COLOUR: BLACK REF. TULMAR P/N 1495
- 1.3) ADHESIVE: URETHANE WITH CATALYST, TWO PART, CLIFTON LA4009
- 1.4) THREAD: NYLON, BLACK, V-T-295 TYPE 2, CLASS A, SIZE F, 8-10 STITCHES PER INCH REF. TULMAR P/N 2530
- 2) FINISH: BOND NEOPRENE TO COVER PLATE USING ADHESIVE. COVER WITH DENIER AS SHOWN.
- 3) TOLERANCES: PER TABLE 1 (ZN A3-1) UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.30 lbs REF
- 8) NUTPLATES AND HOLES MUST BE FREE OF ADHESIVE AND FABRIC
- 9) IT IS ACCEPTABLE TO RELIEVE FOAM WHERE THE NUTPLATES ARE LOCATED TO ENSURE ADEQUATE BONDING OF FOAM TO PLATE
- 10) DENIER NYLON TO BE BONDED ALL AROUND INNER SIDE OF PLATE

ITEM	QTY	P/N	DESCRIPTION
1	X	B67-43001-35	LOWER PAD ASSEMBLY
2	1	B67-43001-341	LOWER PAD FIXTURE
3	7	MS21075L3	NUT PLATE
4	14	MS20426AD3-3	RIVET
5	A/R	1637-001	SEE NOTE 1.1
6	A/R	1495	SEE NOTE 1.2
7	A/R	LA4009	SEE NOTE 1.3
8	A/R	2530	SEE NOTE 1.4

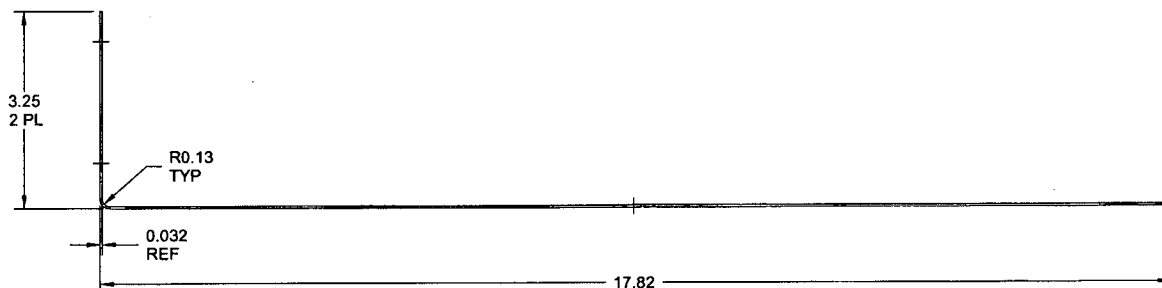
SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 160837 MJS
1705-05

RELEASED
2010-09-16
MJS

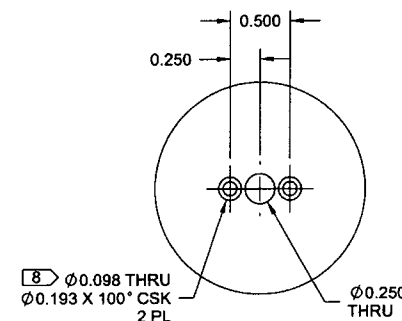
TABLE 1 (3)
TOLERANCES ON FABRIC
(PARTS AND ASSEMBLIES)

±1/8: DIMS <2
±1/4: DIMS 2 TO <10
±1/2: DIMS 10 TO <20
±5/8: DIMS 20 TO <40
±1.5%: DIMS EQUAL TO OR > 40

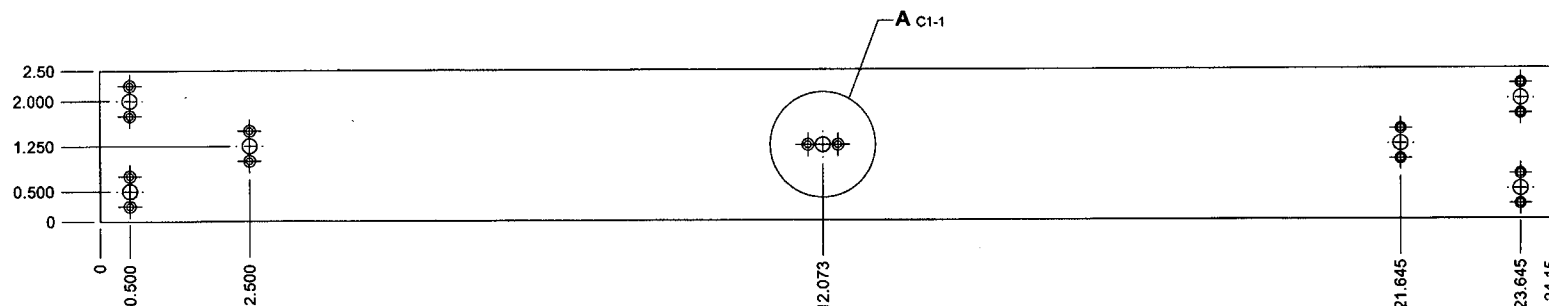
C	REDRAWN PREMIER AVIATION DRAWING IAW DART QSI 018, QSI 043 AND TULMAR SAFETY SYSTEMS INC.'S MANUFACTURING PROCESS AND TOLERANCES ON FABRIC. FOR PREVIOUS REVISIONS, REFER TO SHEET 40 OF PREMIER AVIATION DRAWING No. B67-43001. REASON: SEE PAR#09-011.	MB	10.04.27
REV.	DESCRIPTION	BY	DATE
DESIGN	R/W		
DRAWN		DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO. B67-43001-35	REV. C SHEET 1 OF 1
MFG. APPR.		TITLE LOWER PAD ASSEMBLY	SCALE NTS
APPROVED	N/A		
DE APPR.			
DATE	10.04.27	COPYRIGHT © 1995 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	



B67-43001-341 LOWER PAD FIXTURE (2)
(MAKE FROM B67-43001-341F)



DETAIL A C4-1
7 PL, SCALE 2X



B67-43001-341F FLAT PATTERN (1)

NOTES:

- 1) MATERIAL: 2024-T3 ALUMINUM SHEET, 0.032 THICK
PER AMS-QQ-A-250/4 OR AMS 4037 OR ASTM B209
REF. DART SPEC. M2024T3S.032
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT GREEN SANDEX (4.3.5.8) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "B67-43001-341" AND B/N "BXXXXX" USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: 0.19 lbs
- 8) CSK'S MUST FACE OUTSIDE ON FINISHED BENT PART

RELEASED
2010-09-16

C	REDRAWN PREMIER AVIATION DRAWING IAW DART QSI 018 AND QSI 043. FOR PREVIOUS REVISIONS, REFER TO PREMIER AVIATION DRAWING No. B67-43001. REASON: SEE PAR#09-011.			MB	10.04.27	
REV.		DESCRIPTION			BY	DATE
DESIGN	RW	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA				
DRAWN						
CHECKED		DRAWING NO.	REV. C			
MFG. APPR.		B67-43001-341	SHEET 1 OF 1			
APPROVED		TITLE	SCALE			
DE APPR.	N/A	LOWER PAD FIXTURE	NTS			
DATE	10.04.27	COPYRIGHT © 1995 BY DART AEROSPACE LTD				
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR REPRODUCED IN ANY FORM OR BY ANY MEANS WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.						



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO36512

Purchase Order Date 5/31/2017

PO Print Date 6/1/2017

Page Number 1 of 3

Order From :

TULMAR SAFETY SYSTEMS
1123 CAMERON ST
HAWKESBURY, ON K6A 2B8
CA

VC-TUL001

Ship To : DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

E-MAILED
JUN 01 2017

Contact Name

Vendor Phone 613 632 1282

Ship To Contact

Ship To Phone

Ship Via: VENDOR'S TRUCK

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax #

10127-2607

Terms

Net 30

Currency

CAD

FOB

FCA - (Free Carrier)

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
1	160832	PB67-43001-35 LOWER PAD	6/16/2017 Yes 6/16/2017		6.00	\$115.00	\$690.00
FOAM AND FABRIC AS PER DWG PB67-43001-35 REV. C + I TULMAR P/N: 8421-109							
Line Total:							\$690.00
2	160825	PB67-43001-83 D-PAD	6/16/2017 Yes 6/16/2017		20.00	\$55.00	\$1,100.00
FOAM AND FABRIC AS PER DWG PD67-43001-83 REV. D TULMAR P/N: 8421-101							
Line Total:							\$1,100.00

Note:

6/1/2017

PACKING SLIP

TULMAR

Tulmar Safety Systems Inc.
1123 Cameron Street
Hawkesbury, ON K6A 2B8
Tel: 613-632-1282
Fax: 613-632-2030
GST R132478223
MID : XOTULSAF1123HAW
email: info@tulmar.com

Packing Slip No. Page
60554 1

Ship Date
6/21/2017

Bill To:

Dart Aerospace
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Canada

Ship To:

Dart Aerospace
1270 Aberdeen Street
Tel: 613-632-9577
Hawkesbury, ON K6A 1K7
Canada

Order number 34924	Sales order date 5/31/2017	Account number CDART100	Loc H	Account manager Francine Bigras
PO number PO36512	Ship via Pick-Up	Shipping Terms FOB HAWKESBURY		

Item No. Description	Quantity ordered	UOM	Qty Shipped/Returned	Quantity on back order
Line 5 = Procurement Quality Clauses A004 A005 A007A016 A026 A040 A041 A043(TSS 5yrs only) *****				
8421-109 Dart Blade Fold Kit - Pad #10 Drawing No: B67-43001-35+ MU ✓ DWG Rev: C+1 Line 1 SF 42264 CUSTOMER PICKUP	6.00	EA	6.00	

SF 42264-22

Lot no.: BATCH0000000008	6.00		
8421-108 Dart Blade Fold Kit - Pad #9 Drawing No: B67-43001-267+MU DWG Rev: C+1 Line 4 *minimum buy 5pcs SF 42267 CUSTOMER PICKUP	4.00	EA	4.00
Lot no.: BATCH0000000011	4.00		

Certificate of Conformance

☒ See Certification Enclosed

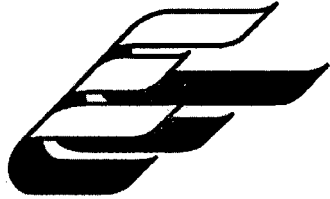
I hereby certify that the items listed hereon have been inspected, and / or tested (as applicable), conform to all specifications and requirements detailed in the contract or purchase order. Objective evidence to support this statement is on file, and can be made available upon request.
If any questions or concerns, please contact QA Manager @ 613-632-1282 ext. 245.

Authorized Inspector

Suzanne LaLiberte

Date:

JUN 21 2017



J. ENNIS FABRICS

June 10, 2015

Fax To: Tulmar Safety Systems
Fax: 613-632-2030
Attention: Sandra Nadeau

Certificate of Conformance

Re: PO 28594-00 for Oxford 7 black

The goods shipped on P/O 28594-00 are as per sampled goods. Specification as follows:
As per mill documentation:

Oxford 7 black is in compliance with the following standards:

Width: Product is 58 Inches Wide.

Roll Size: Average Roll Length is 75 Yards.

Weight: Product Weight is 6.79 Ounces per Sq.Yd. /Product Weight is 10.94 oz per Lin.Yd

Content: 100% Nylon

Coating: Product has a Polyurethane Coating {approximately 0.65 oz/ Sq.Yd. (18.5g/sq.yd.)}

Denier: Yarn is 420 Denier.

Thread Count: Construction is 62 x 38 Threads per Square Inch

Protective Finish: Product is Water Repellent.

Hydro Resist: AATCC 127 (Suter): Average 800 mm

Piece # 111926200 Manufacture Date: 03/25/15, **Lot Number:** 444815

Sincerely;
J. Ennis Fabrics Ltd.

S, Nolan

Susan Nolan
Customer Service Specialist

cl's used to mfg. B67-43001-35 + nu
Rev. c+1

*Sandra Paliberte (cc)
June 24/17*

JUN 19 2015

1495 # 33
B



TULMAR**Certificate of Conformance**

Tulmar P/N 1637-001	Description 1/2" X 42" X 72"	Dwg #	Revision	Qty 4
Tulmar PO # 30168-00	Line Item # 01	Supplier Name / Address AM RUBBER & FOAM GASKETS INC. 2074 STEELES AVE. EAST, UNITS 1 & 2 BRAMPTON, ON. L6T 4Z9		Supplier Packing Slip # 16428

Supplier Declarations:

Hazardous Materials Acknowledgement	The items described below may contain, and their processing may have included, the following substances:	Hexavalent Chromium; Cadmium; Beryllium; Nickel; Mercury; Lead; Asbestos; Radioactive elements YES ☐ NO ☒
Country of Origin of Goods : CANADA		if YES, please complete the HazMat Acknowledgement form @ www.tulmar.com
Limited Shelf-Life	<u>Definition:</u> If material is consumed or transformed into final product before end of shelf-life there is no effect on final product.	These items have a limited Shelf-Life YES ☐ NO ☒
Expiry date	<u>Definition:</u> Date after which performance will no longer be as intended - expiration is transferred to the final product.	These items have an expiry date YES ☐ NO ☒

if YES, please complete the Time Expired - Shelf-Life questionnaire @ www.tulmar.com

Additional Information (MRS#, MRA#, limitations, etc...):

FOAM, SBR/EPDM/CR BLEND, BLACK ASTM D1056 2A2, 1/2"TH. SHEET SIZE 42" X 72" +/-0.5" BRITTLNESS TEMP OF -40 DEGREES F IAW ASTM D746, FMVSS 302. QUALITY CLAUSE: GrBT3

I hereby certify that the goods listed hereon have been inspected and/or tested, as applicable, and conform to all specifications and requirements detailed in the contract or purchase order and relevant quality clauses. Objective evidence to support this statement is on file and can be made available upon request. Should further information be required, please contact:

Signature 	Name SANDRA PULSINELLI	Date (DD-MMM-YYYY) 07-06-2016
Title PRODUCTION	Email sandra@amrubber.ca	Phone # 905-455-1449

1637-001**JUN 16 2016**

Form Revision 13 Aug 2012

2#9

June 7, 2016

TULMAR SAFETY SYSTEMS
 1123 CAMERON STREET
 HAWKSBURY, ONTARIO
 K6A 2B8

CERTIFICATE OF COMPLIANCE

This is to certify that the item mentioned below, shipped to Tulmar Safety Systems by Cansew Inc. on June 7, 2016, has been produced in accordance with the requirements of Purchase Order no. 30203-00 of the same date:

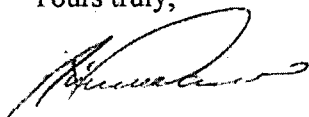
- **NB CBB92 LB;** Cansew Nylon – Qty 44.26 lbs, Colour: Black
 LOT #: F78826

Description

Thread, Nylon, Twisted, Black, A-A-59826, TY2, CLA, Size F, CBB92, (Supercedes V-T-295)

Hazardous Materials Acknowledgement	The items described below may contain, and their processing may have include, the following substances:	Hexavalent Chromium: Cadmium: Beryllium; Nickel; Mercury; Lead; Asbesotos; Radioactive elements YES NO ●
Country of Origin of Goods: USA		
Limited Shelf-Life	<u>Definition:</u> If material is consumed or transformed into final product before end of shlf-life there is no effect on final product.	These items have limited Shelf-Life YES NO ●
Expiry date	<u>Definition:</u> Date after which performance will no longer be as intended – expiration is transferred to the final product.	These items have expiry date YES NO ●

Yours truly,


Richard Doré
 Sales Manager

JUN 08 2016

2530 B#56

MONTREAL 111 Chabanel W. H2N 1C9 Tel. (514) 382-2801 1-800-361-7722 Fax: (514) 385-5530 E-mail: info@cansew.ca www.cansew.ca	TORONTO 28 Apex Rd. M6A 2V2 (416)782-1122 1-800-387-8584 (416)782-8358 info@cansew.ca	WINNIPEG 1674 Church Ave. R2X 2W9 (204)942-4264 1-800-665-0701 (204)947-9280 info@cansew.ca	CALGARY 3932-29th St. N.E. T1Y 6B6 (403)291-4494 1-800-667-4197 (403)291-5139 info@cansew.ca	VANCOUVER 1217 East Georgia St. V6A 2A9 (604)682-4341 1-800-580-0737 (604)682-4196 info@cansew.ca
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48 Burgess Place
Wayne, NJ 07470

Certificate Of Analysis

2/17/2017

Sales Order Number: 9425
Customer Order Number: 30970

Manufactured for
TULMAR SAFETY SYSTEMS

4172-C6-9A LA4009NOVOC P/N 7122-001 14172-C6-9A - LA4009NOVOC UNLINED GALLON CAN

Lot# PNJ-0117-0331 Qty: 53 CANS + PART CAN @ 3# Manufacture Date: 2/1/17 Expiration Date: 2/1/18

Test(s)	Results	Min	Max	
% Solids @275F for 30 minutes	15.0000	13.00	15.00	Percent
Brookfield, RVT, #3 Spindle, 20RPM, 78F	1,015.0000	800.00	1,500.00	Centipoise
Visual check for dry film color	pass	(CLEAR TO HAZY YELLOW) PASS/FAIL		

4556-S1-9 CAT7020 P/N 7153-002 14556-S1-9 - CAT7020 QUART CANS SQUARE UNLINED

Lot# PNJ-0117-0329 Qty: 11 EA Manufacture Date: 2/14/17 Expiration Date: 8/14/17

Test(s)	Results	Min	Max
	NOT APPLICABLE	NA	NA

4914-C7 DB7020M1 P/N 7153-001 14914-C7 - DB7020M1 GALLON LINED CAN

Lot# PNJ-0117-0332 Qty: 52 CANS + PART CAN @ 5# Manufacture Date: 2/3/17 Expiration Date: 8/3/17

Test(s)	Results	Min	Max	
% Solids @275F for 30 minutes	23.7000	21.00	24.00	Percent
Brookfield, RVT, #3 Spindle, 20RPM, 78F	835.0000	450.00	1,250.00	Centipoise

"The material supplied conforms to all applicable engineering drawing, specifications and PO requirements."

Dan Constantino

Daniel Constantino
Quality Assurance Mgr/ISO Coordinator

Country of Origin: USA

7122-001
B#10

FEB 28 2017

